10301 Baltimore Blvd. Beltsvill , MD 20705-2351

Public Services

Division

## REFERENCE & USER SERVICES BRANCH FAX TRANSMISSION

	301-504-6927
DATE	2/5/02
TO:	Tammy 1 Tobe
organization: 🗓	<del></del>
FAX PHONE:	703-386-5758
VOICE PHONE:	103-306-5947
FROM: JERR	Y RAFATS
VOICE PHONE: (	301) 504-5530 R:
ORIGINAL MAILED?	YES NO
SPECIAL INSTRUCTION	NS:

Seed quality in relation to seed size in radish. TI: Pandita-VK; Randhawa-KS IARI, Regional Station, Karnal 132 001, India. Sø: Seed-Research. 1992, publ. 1993, 20: 1, 47-48; 2 ref. PY: 1992 LA: English AB: In a trial on radish cultivars Pusa Rashmi and Pusa Chetki, seeds were graded into 3 size categories (>2.75 mm, between 1.5 and 2.75 mm and <1.5 mm). Germination percentage (between rolled paper towels in the laboratory) and seedling emergence percentage (in pots) increased significantly with increasing seed size. DE: seed-germination; seedling-emergence; seedlings-; radishes-; seeds-; quality-; assessment-; size-; germination-; emergence-; seed-size; vegetables-; root-crops OD: raphanus-sativus; Brassicaceae-GE: India-; Haryana-BT: Spermatophyta; plants; Raphanus; Brassicaceae; Capparidales; dicotyledons; angiosperms; Commonwealth-of-Nations; Developing-Countries; South-Asia; Asia India CC: FF160 CD: Plant-Propagation PT: Journal-article IS: 0379-5594 UD: 960116 AN: 950305458 Record 3 of 26 - CAB Abstracts 1992 TI: Effects of pollen-load size and number of donors on sporophyte fitness in wild radish (Raphanus raphanistrum). AU: Snow-AA AD: Smithsonian Environmental Research Center, Box 28, Edgewater, MD 21037, USA. SO: American-Naturalist. 1990, 136: 6, 742-758; 52 ref. PY: 1990 LA: English AB: The effects of past and current pollen competition on sporophytic fitness were investigated. The intensity of previous pollen competition had no overall effect on progeny characteristics such as seed size, germination rate, plant size or fecundity, measured in field and greenhouse environments. Pollen from "intense" previous competition was used to test for separate effects of pollen-load size ( 60 vs. 300 grains) and number of pollen donors/stigma (1 vs. 3). These treatments had no effects on progeny fitness. DE: Radishes-; Genetic-resources; pollen-competition; biology-; pollen-; ecology-; intraspecific-competition; germination-; seed-production; size-; weeds-OD: Raphanus-raphanistrum; Raphanus-sativus ID: seed-chraracteristics; plant-genetic-resources BT: plants; Raphanus; Cruciferae; Capparidales; dicotyledons; angiosperms; Spermatophyta; North-America; America CC: FF020; FF060; PP700; FF500; PP720; FF100 CD: Plant-Breeding-and-Genetics; Plant-Physiology-and-Biochemistry; Biological-Resources-General; Weeds-and-Noxious-Plants; Biological-Resources-Plant; Plant-Production PT: Journal-article IS: 0003-0147 UD: 950316

Record 4 of 26 - CAB Abstracts 1990-1991

TI: Occurrence of the beet leafhopper-transmitted virescence agent in red and daikon radish seed plants in Washington State.

AN: 921626511

CD: Plant-Production; Plant-Physiology-and-Biochemistry; Plant-Composition; Composition-and-Quality-of-Plant-Products PT: Journal-article UD: 950314 AN: 860701342 Record 9 of 26 - CAB Abstracts 1984-1986 II. Seed variation in wild <u>radish;</u> effect of seed size on components of seedling and adult fitness. AU: Stanton-ML AD: Dep. of Biol., Yale Univ., New Haven, CT 06511, USA. \$0: Ecology. 1984, 65: 4, 1105-1112. ∳Υ: 1984 A: English AB: The size of seed selected from single plants of wild radish (Raphanus raphanistrum) and sown close together under natural conditions on a sporadically cultivated site did not effect the date of seedling emergence, but the proportion of emerged seedlings was higher for seeds weighing >6 mg than for those weighing < 4 mg. Seedlings from large seeds grew more rapidly and produced more flowers than those from related smaller seeds. In the greenhouse, however, seed size had little or no influence on plant size at maturity. The significance of experimental conditions for the study of seed size variation in relation to seedling development is discussed. DE: seeds-; Techniques-; germination-; seed-size; weeds-OD: Raphanus-raphanistrum GE: Connecticut-; USA-BT: plants; Raphanus; Cruciferae; Capparidales; dicotyledons; angiosperms; spermatophyta; New-England-States-of-USA; Northeastern-States-of-USA; USA; Northeastern-States-of-USA; USA; Northeastern-States-of-USA; USA; America; America CC: FF500; ZZ900; FF100; SS230 CD: Weeds-and-Noxious-Plants; Techniques-and-Methodology; Plant-Production; Composition-and-Quality-of-Plant-Products PT: Journal-article IS: 0012-9658 UD: 950314-√. AN: 850774552 Record 10 of 26 - CAB Abstructs 1982-1983 TI: The effects of seed size on germination characteristics of several vegetable species. OT: Effetto della calibratura del seme sulle caratteristiche germinative di alcune specie ortensi. AU: Macchia-M; Magnani-G AD: Istituto di Agronomia e Coltivazioni Erbacee, Universita di Pisa, Italy. SO: Notiziario-di-Ortoflorofrutticoltura 1982, 8: 5, 220-223; 2 ref. PY: 1982 LA: Italian AB: Seeds of turnip (cv. Toscana), cabbage, radish (cv. Cherry Belle), leek (cv. Gigante d'Inverno), endive (cv. Pancalieri) and carrot (cv. Nantes) were calibrated into 3-5 size categories, and for each category data on the following are tabulated: percentage of the total seed weight, 1000-seed weight, percentage germination and germination vigour. Germination vigour was unaffected by seed size . Percentage germination was affected in leek where it was lower in the very largest seeds, in endive where it was much lower in the smallest seeds, and in carrot where it increased regularly with seed size. DE: radishes-; turnips-; cabbages-; leeks-; endives-; carrots-; vegetables-; seeds-; germination-; size-

OD: Raphanus-sativus; Brassica-campestris-var.-rapa; Brassica-oleracea-var.-capitata;

BT: Raphanus; Cruciferae; Capparidales; dicotyledons; angiosperms; Spermatophyta;

Allium-porrum; Cichorium-endivia; Daucus-carota

€00 🗹

UD: 950203 AN: 820308469 Record 13 of 26 - CAB Abstracts 1979-1981 CA: Netherlands, Glasshouse Crops Research and Experimental Station. SO: Netherlands, -Glasshouse-Crops-Research-and-Experimental-Station: -Annual-report-1979. 1979, 109 pp. PB: Naaldwijk.; Netherlands PY: 1979 LA: English AB: Chinese cabbages: Studies of tipburn, and plant spacing at different day/night temperature regimes. Kohlrabi; Variety trials; response to N; relationship between seed size and root diameter at harvest; and bromide residues. Radishes: Variety trials; effect of mulching at different light intensities; response to N; growth at different day/night temperature regimes; different sowing distances compared; and bromide residues. DE: Chinese-cabbages; kohlrabi-; radishes-; vegetables-OD: Cruciferae-; Brassica-; Brassica-oleracea-var.-gongylodes; Raphanus-sativus GE: Netherlands-BT: Capparidales; dicotyledons; angiosperms; Spermatophyta; plants; Cruciferae; Brassica-oleracea; Brassica; Raphanus; Western-Europe; Europe CC: AA000 CD: Agriculture General PT: Annual-report UD: \$50202 AN: 81039171 Record 14. of 26 - CAB Abstracts 1979-1981 TI: Effect of seed size and sowing dates on germination and yield of radist (Raphanus sativus L.) roots. AU: Gill-SS; Hari-Singh AD: Punjab Agricultural University, Ludhiana, India. SO: Seed-Research. 1979, 7: 1, 58-62; 9 ref. PY: 1979 LA: English AB: In 2-year field and laboratory trials with the radish cv. Punjab Sufaid, field germination was highest (80.7-86.9%) in medium size seeds (100 seeds weighing 1.367-1.382 g). Root yield was highest with sowing in mid-October compared with sowings made from 1 September to 1 December. DE: radishes-; seeds-; germination-; seed-size; sowing-; dates-; vegetables-; root crops OD: Cruciferae-; Raphanus-sativus GE: India-BT: Capparidales; dicotyledons; angiosperms; Spermatophyta; plants; Raphanus; Cruciferae; South-Asia; Asia CC: FF160 CD: Plant-Propagation PT: Journal-article IS: 0379-5594 UD: 950220 AN: 800385511 Record 15 of 26 - CAB Abstracts 1979-1981 TI: Some aspects of seed size and plant spacing on the maturity characteristics of radish. AU: Lee-SK; Nichols-MA AD: Massey University, Palmerston North, New Zealand. SO: Acta-Horticulturae. 1978, No.72, 191-199; 10 ref.

₹00 Ø

PY: 1978 LA: English

melongena; Cichorium-endivia; Brassica-oleracea-var.-gongylodes; Allium-porrum; Lactuca-sativa; Cucumis-melo; Raphanus-sativus; Lycopersicon-esculentum GE: Netherlands-ID: Glasshouse-Crops-Research-and-Experimental-Station BT: Solanaceae; Solanales; dicotyledons; angiosperms; Spermatophyta; plants; Sphaerotheca; Erysiphales; Ascomycotina; Eumycota; fungi; Tetranychus; Tetranychidae: Prostigmata; Acari; Arachnida; arthropods; invertebrates; animals; Deuteromycotina; Brassica-oleracea; Brassica; Cruciferae; Capparidales; Cucurbitaceae; Violales; Cucumis; Solanum; Cichorium; Compositae; Asterales; Allium; Alliaceae; Liliales; monocotyledons; Lactuca; Raphanus; Lycopersicon; Western-Europe; Europe CC: AA000 CD: Agriculture-General PT: Annual-report UD: 950127 AN: 780263678 Regord 17 of 26 - CAB Abetracts 1976-1978 II: The effect of spacing and seed size on radish yield. OT: Wplyw-rozstaway oraz wielkosci nasion na plon rzodiewki. AU: Gapinski-M; Borna-Z AD: Akademia Rolnicza, Poznan, Poland. SO: Roczniki-Akademii-Rolniczej-w-Poznaniu, -Ogrodnictwo. 1974, 69: 5, 43-51; 8 ref. PY: 1974 LA: Polish LS: English, Russian AB: Seeds <2 mm, 2-2.5 mm and >2.5 mm in diameter were used. The plants were spaced at 2, 3, 4 or 5 cm in the row with 5, 10, 15 or 20 cm between rows. Optimum results were obtained from plants spaced at 2-3 cm with 5-10 cm between the rows Seed size had no appreciable effect on crop quality or quantity. DE: radishes:; seeds-; sowing-; density-; vegetables-; root-crops OD: Cruciferae-; Raphanus-sativus BT: Capparidales; dicotyledons; angiosperms; Spermatophyta; plants; Raphanus; Cruciferae CC: FF100 CD: Plant-Production PT: Journal-article IS: 0137-1738 UD: 950127 AN: 760348095 Record 18 of 26 - CAB Abstracts 1976-1978 TI: Some aspects of seed germination in vegetables. II. The effect of temperature fluctuation, depth of sowing, seed size and cultivar, on heat sum and minimum temperature for germination. AU: Wagenvoort-WA; Bierhuizen-JF AD: Landbouwhogcschool, Wageningen, Netherlands. SO: Scientia-Horticulturae. 1977, 6: 4, 259-270; 6 ref. PY: 1977 LA: English AB: The germination period of seeds can be predicted for any soil temperature with the use of a heat sum (\$) and a minimum temperature for germination (Tmin). Experiments with vegetable seeds of 31 species were carried out to establish whether S and Tmin were affected by diurnal soil temperature variation, depth of sowing or variation in seed size (of radish) and whether greater differences were to be expected between cvs (of lettuce). In general the above-mentioned variables did not greatly affect Tmin and S. For practical purposes, an optimum temperature range for germination was established. [For part I see HcA 45, 3106.] DE: vegetables-; radishes-; lettuces-; seeds-; germination-; environmental factors; effects-; root-crops; temperature-

OD: Raphanus-GE: Poland-BT: Cruciferae; Capparidales; dicotyledons; angiosperms; Spermatophyta; plants; Central-Europe; Europe CC: FF020 CD: Plant-Breeding-and-Genetics PT: Miscellaneous UD: 950126 AN: 761639478 Record 31 of 36 - CAB Abstracts 1976-1978 TI: Relation between root weight, seed size and conditions of cultivation in radiah. AU: Kononkov-PF; Kravchuk-V-Ya SO: Selektsiya-i-semenovodstvo-ovoshch.-kul'tur,-2. 1974, 63-67. PB: Moskovskii rabochii.; Moscow; USSR PY: 1974 LA: Russian AB: The seeds of nine varieties were divided into fractions with a diameter over and under 2.5 mm and sown under different photoperiodic conditions. There was an increase in the average weight of the roots when the plants from the large-seed fraction were grown in a short day. The root weight of varieties of the type Rozovo-krasnyi s belym konchikom [Pink-red White-tipped] depended on seed size and photoperiodic conditions to a greater extent than it did in varieties of the type Saxa. DE: seed-size; roots-; photoperiodism-; <u>radishes-</u>; development-; vegetables-; rootcrops; weight-OD: Raphanus-; Cruciferae-; Raphanus-sativus GE: Russia-; USSR-ID: root-development BT: Cruciferae; Capparidales; dicotyledons; angiosperms; Spermatophyta; plants; Raphanus; Asia; Central-Europe; Europe CC: FF020; FF160 Ch: Plant-Breeding-and-Genetics; Plant-Propagation Miscellaneous CI: Referativnyi Zhurnal (1975) 5.55.575. VD: 958126 AN: 761647170 Record 22 of 26 - CAB Abstracts 1972 1975 TI: The effect of spacing and seed size on radish yield. OT: Wplyw rozstawy oraz wielkosci nasion na plon rzodkiewki. AU: Gapinski-M; Borna-Z AD: Akademia Bolnicza, Poznan, Poland. SO: Roczniki-Akademii-Rolniczej-w-Poznaniu. 1974, 69: 5, 43-51; 8 ref. PY: 2974 LA: Polish LS: English, Russian AB: The rows were spaced 5, 10, 15 or 20 cm apart and the plants in the rows 2, 3, 4 and 5 cm apart. The seeds used were <2 mm, from 2 to 2.5 mm or >2.5 mm in diameter. The greatcst yield was obtained with rows 5 cm apart and plants 3 cm apart in the rows. Seed size had little effect on yield. DE: radishes-; seeds-; sowing-; spacing-; vegetables-; root-crops OD: Cruciferae-; Raphanus-sativus GE: Poland-BT: Capparidales; dicotyledons; angiosperms; Spermatophyta; plants; Rapha<u>nue</u>; Cruciferae; Central-Europe; Europe CC: FF100 CD: Plant-Production PT: Journal-article UD: 950125

9002

characters in <u>radish</u> varieties. AU: Kravchuk-V-Ya SO: Tr.-VNII-selektsii-i-semenovods

SO: Tr.-VNII-selcktsii-i-semenovodstva-ovoshch.-kul'tur. 1971, No.4, 22-25.

PY: 1971

LA: Russian

AB: A study was made of 20 varietal samples in two seed-size fractions: diameter >2.5 mm and diameter <2.5 mm. A weak correlation was found between the main characters in the different varieties and their 1000-grain weight (r = 0.1-0.34). A direct correlation was observed between the quantitative values of the main economically valuable characters and the size (diameter) of the seeds.

DE: seed-size; vegetables-

OD: Raphanus-

BT: Cruciferae; Capparidales; dicotyledons; angiosperms; Spermatophyta; plants

CC: FF020

CD: Plant-Breeding-and-Genetics

PT: Journal-article

CI: Referativnyi Zhurnal (1972) 6.55.543.

UD: 950125

AN:-751625474

Record 26 of 26 - CAB Abstracts 1972-1975

TI: Effect of nitrogen, potash and seed size on radish.

AU: Arora-PN

AD: Indian Agricultural Research Institute, New Delhi.

SO: Indian-Journal-of-Agronomy. 1971, 16: 4, 526-527.

PY: 1971

LA: English

AB: [515:22],

DE: responses-; radishes-; nitrogen-fertilizers; potassium-fertilizers

OD: Raphanus-sativus

BT: fertilizers; Raphanus; Cruciferae; Capparidales; dicotyledons; angiosperms; Spermatophyta; plants

CC: JJ700; FF000

CD: Fertilizers-and-other-Amendments; Plants-of-Economic-Importance-General

PT: Journal-article

IS: 0537-197X

UD: 950124

AN: 731904400